APPENDIX

PENDING CLAIMS WITH AMENDMENTS EFFECTED THEREIN

- 1. (Amended) An ion-conductive polymeric compound, [characterized in that] comprising one or more boron atoms [are present] in a polymeric structure.
- 2. (Amended) The ion-conductive polymeric compound according to claim 1[, characterized by] having being represented by the following general formula (1)[.]

$$B = \begin{bmatrix} X - R + X - B \end{bmatrix}_{m}$$

$$(1)$$

wherein X represents a hetero-atom, R represents a divalent to hexavalent group having a molecular weight of at least 150, m represents an integer of 1 to 5, and n represents a recurring number of 1 or more.

- 3. (Amended) The ion-conductive polymeric compound according to claim 1 or 2, [characterized in that] wherein the hetero-atom represented by X in general formula (1) is an oxygen atom.
- 4. (Amended) The ion-conductive polymeric compound according to [any one of claims 1 to 3, characterized in that] <u>claim 1 or 2, wherein</u> the group represented by R in general formula (1) is a polymer or a copolymer of compound (A) represented by the following formula (2) and/or compound (B) represented by the following formula (3)[.]

compound (A)

$$H_2C \longrightarrow CH_2$$
 (2)

compound (B)

 $H_2C \longrightarrow CH$ (3)

wherein R¹ represents a methyl group, an ethyl group, a propyl group, a butyl group or a group represented by the following formula (4)

wherein r represents 0 or an integer of 1 or more, and Ra represents a methyl group, an ethyl group, a propyl group or a butyl group.

5. (Amended) The ion-conductive polymeric compound according to [any one of claims 1 to 4, characterized by being represented by] claim 1 having the following general formula (5)[.]

$$B = \begin{bmatrix} 0 & R & B \\ 1 & 1 \\ 1 & 3 \end{bmatrix}$$
 (5)

wherein R represents a divalent group having a molecular weight of at least 150, represented by the following formula (6), and n represents a recurring number of 1 or more[.]

$$\begin{array}{c}
-\left\{ CH_{2}CH_{2}O\right\}_{p}\left\{ CH_{2}CHO\right\}_{q} & (6)
\end{array}$$

wherein R¹ is a methyl group, an ethyl group, a propyl group, a butyl group or a group represented by the following formula (4), p

represents an integer of 0 to 38,000, and q represents an integer of 0 to 28,000, provided p and q are not 0 at the same time[.]

$$-CH_2-[-CH_2CH_2O-]_r-Ra$$
 [formula] (4)

wherein r represents 0 or an integer of 1 or more, and Ra represents a methyl group, an ethyl group, a propyl group or a butyl group.

6. (Amended) The ion-conductive polymeric compound according to claim 1[, characterized by being] obtained by crosslinking a compound represented by the following general formula (7)[.]

$$B - X - R - Y \bigg]_3 \tag{7}$$

wherein X represents a hetero-atom, R represents a divalent group having a molecular weight of at least 150, and Y represents a polymerizable functional group.

7. (Amended) The ion-conductive polymeric compound according to claim 6, [characterized in that] wherein R in general formula (7) is a polymer or a copolymer of compound (A) represented by the following formula (2) and/or compound (B) represented by the following formula (3)[.]

$$H_2C$$
 CH_2 (2)

compound (B)

wherein R¹ represents a methyl group, an ethyl group, a propyl group, a butyl group or a group represented by the following formula (4)

 $-CH_2-[-CH_2CH_2O-]_r-Ra$ [formula] (4)

wherein r represents 0 or an integer of 1 or more, and Ra represents a methyl group, an ethyl group, a propyl group or a butyl group.

8. (Amended) The ion-conductive polymeric compound according to claim 6 or 7, [characterized in that] wherein the compound represented by general formula (7) is represented by the following general formula (8)[.]

$$B = \begin{bmatrix} O - R - Y \end{bmatrix}_3$$
 (8)

wherein R represents a divalent group having a molecular weight of at least 150, represented by the following formula (6), and Y represents a polymerizable functional group[.]

$$\begin{array}{c}
-\left\{ CH_{2}CH_{2}O\right\}_{p} \\
R^{1} \\
q
\end{array}$$
(6)

wherein R¹ represents a methyl group, an ethyl group, a propyl group, a butyl group or a group represented by the following formula (4), p represents an integer of 0 to 38,000, and q represents an integer of 0 to 28,000, provided p and q are not 0 at the same time[.]

$$-CH_2-[-CH_2CH_2O-]_r-Ra$$
 [formula] (4)

wherein r represents 0 or an integer of 1 or more, and Ra represents a methyl group, an ethyl group, a propyl group or a butyl group.

9. (Amended) The ion-conductive polymeric compound according to [any one of claims 6 to 8, characterized in that] <u>claim 6 or 7, wherein</u> the polymerizable functional group represented by Y is one or more selected from the group consisting of an acrylic residue, a methacrylic residue, an allyl group and a vinyl group.

- 10. (Amended) The ion-conductive polymeric compound according to claim 1, [characterized] in [that the] which a boron atom is [present] in a polymeric side chain.
- 11. (Amended) The ion-conductive polymeric compound according to claim 1, [characterized in that the] in which a boron atom is bound to an end of a polymeric main chain and/or a polymeric side chain as a part of a boron compound.
- 12. (Amended) The ion-conductive polymeric compound according to claim 10 or 11, [characterized in that the] in which a boron atom is bound to an end of a polymeric side chain as a part of [a] an organoboron compound.
- 13. (Amended) The ion-conductive polymeric compound according to [any one of claims 10 to 12, characterized by being] claim 10 or 11 obtained by polymerizing a mixture of compounds represented by the following formulas (9) and (10) respectively[.]

$$Y - R_1 - B = R^{11}$$
 (9)

wherein R_1 represents a divalent group having a molecular weight of at least 100, Y represents a polymerizable functional group, and R^{11} and R^{12} , which may be the same or different, each represent a hydrogen atom, a halogen atom or a monovalent group, or R^{11} and R^{12} are bound to each other to form a ring[.]

$$Z - \left[R_2 - Y \right]_k \qquad (10)$$

wherein R_2 represents a divalent group having a molecular weight of at least 150, Y represents a polymerizable functional group, Z represents an active hydrogen residue, and k represents an integer of 2 to 6.

14. (Amended) The ion-conductive polymeric compound according to claim 13, [characterized in that] wherein R_1 in general formula (9) and/or R_2 in general formula (10) is a polymer of compound (A) represented by the following formula (2) and/or compound (B) represented by the following formula (3)[.]

compound (A)
$$H_2C - CH_2 \qquad (2)$$

wherein R¹ represents a methyl group, an ethyl group, a propyl group, a butyl group or a group represented by the following formula (4)

-CH₂-[-CH₂CH₂O-]_r-Ra [formula] (4) wherein r represents 0 or an integer of 1 or more, and Ra represents a methyl group, an ethyl group, a propyl group or a butyl group.

15. (Amended) The ion-conductive polymeric compound according to claim 13 [or 14], [characterized in that] wherein R1 in general formula (9) and/or R2 in general formula (10) is a divalent group represented by the following formula

$$\frac{-\left\{CH_{2}CH_{2}O\right\}_{p}\left\{CH_{2}CHO\right\}_{q}}{\left\{R^{1}\right\}_{q}}$$
(6)

wherein R¹ represents a methyl group, an ethyl group, a propyl group, a butyl group or a group represented by the following formula (4), p represents an integer of 0 to 38,000, and q represents

an integer of 0 to 28,000, provided p and q are not 0 at the same time[.]

-CH₂-[-CH₂CH₂O-]_r-Ra [formula] (4)
wherein r represents 0 or an integer of 1 or more, and Ra represents
a methyl group, an ethyl group, a propyl group or a butyl group.

- 16. The ion-conductive polymeric compound according to [any one of claims 13 to 15, characterized in that] claim 13, wherein R¹¹ and R¹² in general formula (9) are one or more selected from the group consisting of an alkyl group, an aryl group, derivatives thereof and fluorine-substituted derivatives thereof.
- 18. (Amended) A polymeric electrolyte comprising one or more [types] of the ion-conductive polymeric [compound] compounds according to any one of claims 1 [to 16], 2, 6, 7, 10 and 11.
- 19. (Amended) The polymeric electrolyte according to claim 18, [characterized by] further comprising a nonaqueous solvent.
- 20. (Amended) The polymeric electrolyte according to claim 19, [characterized in that] wherein the nonaqueous solvent is an aprotic solvent.

22. (Amended) The polymeric electrolyte according to claim 21, [characterized in that] wherein the polymeric compound has a structural unit represented by the following general formula (11) in a molecule[.]

wherein Y represents a residue of a polymerizable functional group, R represents a group capable of being bound to the polymerizable functional group and the boron atom and having a molecular weight of at least 40, and Ra, Rb and Rc, which may be the same or different, each represent a group capable of being bound to the boron atom.

23. The polymeric electrolyte according to claim 22, [characterized in that] wherein the polymeric compound is a copolymer further having a structural unit represented by the following general formula (12)

wherein Y represents a residue of a polymerizable functional group,

Z represents a residue of an active hydrogen compound, R'

represents a divalent group having a molecular weight of at least 150, and k represents an integer of 2 to 6.

- 24. (Amended) The polymeric electrolyte according to [any one of claims] claim 21 [to 23], which further comprises an aprotic solvent.
- 25. (Amended) The polymeric electrolyte according to any one of claims 21 to [24] 23, which further comprises an electrolytic salt.
- 26. (Amended) The polymeric electrolyte according to claim [18 or] 25, [characterized in that] wherein the electrolytic salt is a lithium salt.
- 27. (Amended) The polymeric electrolyte according to claim 26, [characterized in that] wherein the lithium salt is one or more selected from the group consisting of LiBF₄, LiPF₆, LiClO₄, LiAsF₆, LiCF₃SO₃, LiN(CF₃SO₂)₂, LiN(C₂F₅SO₂)₂, LiC(CF₃SO₂)₃, LiCl, LiF, LiBr, LiI, derivatives and thereof.
- 28. (Amended) The polymeric electrolyte according to claim 21 or 24, [characterized in that] wherein the aprotic solvent is one or more selected from the group consisting of carbonates, lactones, ethers, sulfolanes and dioxolanes.

- 29. (Amended) An electric device [using] <u>comprising</u> the polymeric electrolyte according to [any one of claims 17 to 28] <u>claim 18</u>.
- 30. (Amended) A cell [in which] <u>comprising</u> a positive electrode [and], a negative electrode [are linked through] <u>and</u> the polymeric electrolyte according to [any one of claims 17 to 28] <u>claim 18</u>, <u>said electrodes being linked through said electrolyte</u>.
- 31. (Amended) The cell according to claim 30, [characterized in that] wherein the positive electrode is made of a double metal oxide capable of occluding and releasing lithium ions, and the negative electrode is made of a lithium metal, a lithium alloy or a compound capable of occluding and releasing lithium ions reversibly.